

## ADVISORY COMMITTEE ON IMMUNIZATION PRACTICES

### VACCINES FOR CHILDREN PROGRAM

#### HEPATITIS B

#### VACCINES TO PREVENT HEPATITIS B

*The purpose of this resolution is to revise the previous resolution to incorporate the use of a 2-dose hepatitis B vaccine schedule for children 11-15 years of age.*

*VFC resolution 6/99-1 is repealed and replaced by the following:*

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#### Eligible Groups

**All previously unvaccinated children and adolescents  
from birth through 18 years.**

#### Eligible Groups for Post-Exposure Immunoprophylaxis

**1. Infants of HBsAg-positive mothers:**

Infants born to mothers who are HBsAg-positive should receive appropriate doses of hepatitis B vaccine and hepatitis B immune globulin (HBIG) (0.5 mL) within 12 hours of birth and should complete the 3-dose hepatitis B vaccine series according to the recommended schedule.

**2. Persons whose sexual partners have acute hepatitis B:**

All previously unvaccinated sexual partners of persons with acute hepatitis B virus infection should receive the hepatitis B vaccine series and a single dose of HBIG (0.06 mL/kg) if HBIG can be started within 14 days of the last sexual contact. The recommended schedule for hepatitis B vaccination of these persons is: 0, 1, 6 months; 0, 1, 4 months; or 0, 2, 4 months.

**3. Persons with percutaneous or mucosal exposure to blood that contains (or might contain) HBsAg:**

For unvaccinated persons who have percutaneous or mucosal exposure to blood, the hepatitis B vaccine series should be initiated. If the source of exposure is HBsAg-positive, HBIG (0.06 mL/kg) should also be administered within 7 days of exposure.

**4. Unvaccinated infants whose primary caregiver has acute hepatitis B.** Infants whose primary caregiver has acute hepatitis B should receive a single dose of HBIG (0.5 mL) and complete the 3-dose hepatitis B vaccine series according to the recommended schedule.

## Recommended Hepatitis B Vaccine Schedule

**The routine recommended schedule for hepatitis B vaccination  
for infants born to HBsAg-negative mothers is:**

Dose	Vaccination Schedule Options†	
	Age of child	Age of child
HepB-1	Birth (0 months)	1-2 months
HepB-2	1-2 months	4 months
HepB-3	6-18 months	6-18 months

NOTE: Premature infants of HBsAg negative mothers should receive the first dose of hepatitis B vaccine series when the infant weighs  $\geq 2$  kg or is 2 months of age, including infants who remain hospitalized.

NOTE: The combination hepatitis B and Haemophilus influenzae type B (Hib) vaccine (COMVAX)\* is licensed for use at 2, 4, and 12-15 months of age. Because of concerns about potential suppression of the immune response to the Hib component with subsequent doses, COMVAX cannot be used for hepatitis B vaccine doses at birth or one month of age, and can only be used after 6 weeks of age. This vaccine may be used whenever administration of any components of the combination are indicated and if other components are not contraindicated; or the separate Hepatitis B and Hib vaccines may be used. If single antigen hepatitis B vaccine is given at birth, 3 doses of hepatitis B containing combination vaccines can be given to complete the series starting after 6 weeks of age.

\* Use of brand name is not meant to preclude the use of other licensed combined Hib/Hepatitis B vaccines.

†3 dose hepatitis B vaccine schedule with pediatric/adolescent formulation

**Recommended schedule of hepatitis B immunoprophylaxis to prevent perinatal transmission of hepatitis B virus infection†:**

Infant born to mother known to be HBsAg\* positive

	<i>Age of infant</i>
HepB-1	Within 12 hours of birth
HBIG ‡	Within 12 hours of birth
HepB-2	1-2 months
HepB-3	6 months

\* HBsAg = Hepatitis B surface antigen.

‡Hepatitis B immune globulin (HBIG) — 0.5 ml administered intramuscularly at a site different from that used for vaccine.

**Preterm infants**

For preterm infants who weigh < 2 kg at birth, the initial vaccine dose should not be counted as part of the 3-dose series, and three doses of vaccine should be administered beginning when the infant is  $\geq 2$  kg or 2 months of age.

**NOTE:** The combination hepatitis B and Haemophilus influenzae type B (Hib) vaccine (COMVAX) is licensed for use at 2, 4, and 12-15 months of age. Because of concerns about potential suppression of the immune response to the Hib component with subsequent doses, COMVAX cannot be used for hepatitis B vaccine doses at birth or one month of age, and can only be used after 6 weeks of age. This vaccine may be used whenever administration of any components of the combination are indicated and if other components are not contraindicated; or the separate Hepatitis B and Hib vaccines may be used. If single antigen hepatitis B vaccine is given at birth, 3 doses of hepatitis B containing combination vaccines can be given to complete the series starting after 6 weeks of age.

Use of brand name is not meant to preclude the use of other licensed combined Hib/Hepatitis B vaccines.

† 3 dose hepatitis B vaccine schedule with pediatric/adolescent formulation

**Recommended schedule of hepatitis B immunoprophylaxis to prevent perinatal transmission of hepatitis B virus infection†:**

Infant born to mother with an unknown HBsAg\* status

	<i>Age of infant</i>
HepB-1	Within 12 hours of birth
HBIG ‡	If mother found to be HBsAg positive, infant should receive HBIG within 7 days of age
HepB-2	1-2 months
HepB-3	6 months

\* HBsAg = Hepatitis B surface antigen.

† Mother should be tested for HBsAg.

‡ Hepatitis B immune globulin (HBIG) -- 0.5 ml administered intramuscularly at a site different from that used for vaccine.

**Preterm infants:** if a preterm infant who weighs < 2 kg at birth, is found to be born to an HBsAg positive mother and receives HBIG before 7 days of age, the initial vaccine dose should not be counted as part of the 3-dose series, and three doses of vaccine should be administered beginning when the infant is  $\geq$  2 kg or 2 months of age.

**NOTE:** The combination hepatitis B and Haemophilus influenzae type B (Hib) vaccine (COMVAX) is licensed for use at 2, 4, and 12-15 months of age. Because of concerns about potential suppression of the immune response to the Hib component with subsequent doses, COMVAX cannot be used for hepatitis B vaccine doses at birth or one month of age, and can only be used after 6 weeks of age. This vaccine may be used whenever administration of any components of the combination are indicated and if other components are not contraindicated; or the separate Hepatitis B and Hib vaccines may be used. If single antigen hepatitis B vaccine is given at birth, 3 doses of hepatitis B containing combination vaccines can be given to complete the series starting after 6 weeks of age.

Use of brand name is not meant to preclude the use of other licensed combined Hib/Hepatitis B vaccines.

† 3 dose hepatitis B vaccine schedule with pediatric/adolescent formulation

**Catch-Up Vaccination**

The ACIP recommends catch-up vaccination of previously unvaccinated children and adolescents less than 19 years of age. The recommended dosing schedules for unvaccinated children and adolescents are:

Option 1: 3 dose pediatric/adolescent formulation for all children < 19 years of age

<b>Dose</b>	<b>Usual Interval</b>
Hep B-1	----
Hep B-2	1 month
Hep B-3	4-6 months

Option 2: 2 dose adult formulation (Recombivax HB®, Merck & Co.) for children 11-15 years of age

<b>Dose</b>	<b>Usual Interval</b>
HepB-1	---
HepB-2	4-6 months

Use of brand name is not meant to preclude use of other brands when recommended for 2 dose administration to adolescents 11-15 years of age.

**Dosage Intervals**

<b>Vaccine</b>	<b>Minimum interval from dose 1 to 2</b>	<b>Minimum interval from dose 2 to 3 (when applicable)</b>	<b>Minimum interval from dose 1 to 3 (when applicable)</b>
Hepatitis B (3 dose schedule with pediatric/adolescent formulation)	4 weeks	8 weeks	16 weeks†
Hepatitis B (2 dose schedule with adult formulation for children 11-15 years of age)	16 weeks		

†The third vaccine dose should not be given to infants before 24 weeks of age.

**Recommended Dosages**

Refer to product package inserts.

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## Contraindications and Precautions

*The following conditions are contraindications to the administration of hepatitis B vaccine:*

1. **Anaphylactic reaction to a previous dose of hepatitis B vaccine.**  
*Further vaccination with hepatitis B and/or hepatitis B/Hib vaccine is contraindicated in persons with a history of anaphylaxis (severe allergic reaction) after a previous dose of hepatitis B and/or hepatitis B/Hib vaccine.*
2. **Known allergy to yeast or yeast products.**
3. **Administration of COMVAX vaccine or other hepatitis B/Hib vaccines to infants younger than 6 weeks of age.**  
*Combined hepatitis B/Hib vaccine must not be administered to infants younger than 6 weeks of age because of potential suppression of the immune response to the Hib component of the vaccine.*
4. **Moderate or severe illnesses with or without fever.**

*The following conditions are contraindications to the administration of hepatitis B immune globulin (HBIG):*

1. **Anaphylactic reaction to a previous dose of any immune globulin preparation.**
2. **Serum immunoglobulin A deficiency.**

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Adopted and Effective: February 17, 2000

**Note:** Vaccines approved by the ACIP for inclusion in the VFC program are not available for use in the program until after the CDC has established a contract for the purchase of the vaccines.